

Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. Applicant/Contact name and address: **Stuart and Annie Shirley
59 Ranch, PO Box 9
Melstone, MT 59054**
2. Type of action **Surface Water Permit Application No. 40C 30106864**
3. Water source name: **Unnamed Tributary of North Willow Creek**
4. Location affected by project: **The project is located in Petroleum County, about 12 miles North of the town of Melstone, Montana**
5. Narrative summary of the proposed project, purpose, action to be taken, and benefits:

The Applicant proposes to divert 33.6 acre-feet (AF) from an Unnamed Tributary of North Willow Creek, by means of a dam from January 1 to December 31 annually. The dam is located approximately 12 miles north-northeast of the Town of Melstone in Petroleum County, MT. The purpose requested through this application is to water stock. The reservoir has a surface area of 8.4 acres and a maximum depth of 10 feet as measured to elevation of spillway crest.

6. Agencies consulted during preparation of the Environmental Assessment:
(include agencies with overlapping jurisdiction)

**Dept. of Environmental Quality Website – Clean Water Act Information Center
MT. National Heritage Program Website - Species of Concern
USDI Fish & Wildlife Service Website - Endangered and Threatened Species
MT State Historic Preservation Office - Archeological/Historical Sites
USDA Natural Resources Conservation Service – Web Soil Survey
USDI Fish & Wildlife Service – Wetlands Online Mapper**

Part II. Environmental Review

1. **Environmental Impact Checklist:**

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity - Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.

Determination: **No Significant Impact.**

The Unnamed Tributary of North Willow Creek is not listed as a chronically or periodically dewatered stream by DFWP. North Willow Creek is listed as periodically dewatered starting at mile 0, all the way to mile 20. Water is stored in a 33.6 AF on-stream reservoir, filled primarily during spring runoff and precipitation events. Flows have been adequately impounded in the reservoir on this unnamed drainage for more than 40-50 years. Water availability in this Unnamed Tributary of North Willow Creek coincides with spring runoff or precipitation events that generally affect a broad area typically making an abundance of water available during that specific occasion. Once impounded, any water not lost to evaporation or seepage could be available for stock use later in the year when stream flows have either diminished or ceased. The depletion of 33.6 AF from this source should not have a significant impact on water quantity.

Water quality - Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.

Determination: **No Significant Impact.**

The Unnamed Tributary of North Willow Creek does not have any data available on the Montana Dept. of Environmental Quality Website – Clean Water Act Information Center.

Groundwater - Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.

Determination: **No Significant Impact.**

Localized ground water elevations are not expected to see any significant impact from this Permit. It is not anticipated that the proposed action would create any significant impacts or adverse effects to groundwater resources. Cumulative impacts associated with the new storage reservoir could alter groundwater patterns in the vicinity of the storage site in a localized manner. Based on the groundwater effects of similar storage projects and other stock reservoirs, it is anticipated that any adverse effects would be minor and non-significant.

DIVERSION WORKS - Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.

Determination: **No Significant Impact.**

The earthen dam was constructed 40-50 years prior to when the Applicants took ownership of the property. No further construction is required so 33.6 acre-feet reservoir is not

anticipated to create any adverse effects concerning channel impacts, flow modifications, barriers, riparian areas, dams, well construction.

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species - *Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any “species of special concern,” or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or “species of special concern.”*

Determination: **No Significant Impact.**

The Montana National Heritage Program lists six Species of Concern and one plant Species (Dwarf woolly-heads) of Concern within Township 12 North, Range 30 East. The common names for the species include the Greater Sage-Grouse, Black-tailed Prairie Dog, Spiny Softshell, Great Plains Toad, and the Plains Spadefoot. The Sauger is the only fish that is listed. All construction associated with this permit was completed 40-50 years ago; therefore no impacts to any of these species are expected.

Wetlands - *Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.*

Determination: **No Significant Impact.**

The National Wetlands Inventory website shows Freshwater Emergent Type Wetlands through a limited portion of the Applicant’s claimed place of use, and were most likely a result of the reservoir itself. However, the wetland areas are an expected result of the reservoir impounding water from this drainage. No significant impacts to wetlands are expected from this permit application; wetland areas may benefit from water stored in the reservoir.

Ponds - *For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.*

Determination: **No Significant Impact.**

This project does not involve a pond. No impact to wildlife, waterfowl, or fisheries is anticipated.

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE - *Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.*

Determination: **No Significant Impact.**

Potential cumulative impacts associated with the construction activities could have a created a minor impact on the soils on the site, but there will be no further impacts than

what has already occurred. It is not anticipated that any significant impacts to geology, soil quality, stability and moisture would result from the proposed action because the reservoir was already constructed.

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS - *Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.*

Determination: **No Significant Impact.**

Construction associated to this project was completed prior to this application. Any impacts to existing cover will have already occurred. Normal weed management can be used to control noxious weeds potentially invading disturbed areas due to construction activities; therefore, no spread of noxious weeds should be associated with this application. It is the responsibility of the property owner to control noxious weeds on their property.

AIR QUALITY - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

Determination: **No Significant Impact.**

No impacts to air quality or adverse effects to vegetation are expected as a result of this proposal; the dam was built by the previous owner 40-50 years ago.

HISTORICAL AND ARCHEOLOGICAL SITES - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project.*

Determination: **N/A – project not located on State or Federal Lands.**

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY - *Assess any other impacts on environmental resources of land, water and energy not already addressed.*

Determination: **No Significant Impact.**

No additional impacts are anticipated.

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

Determination: **No Significant Impact.**

No locally adopted environmental plans or goals have been identified.

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

Determination: **No Significant Impact.**

The proposed action is consistent with livestock practices in the area.

HUMAN HEALTH - *Assess whether the proposed project impacts on human health.*

Determination: **No Significant Impact.**

No impacts to human health have been identified.

PRIVATE PROPERTY - *Assess whether there are any government regulatory impacts on private property rights.*

Yes___ No_X__ If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.

Determination: **No known impacts.**

OTHER HUMAN ENVIRONMENTAL ISSUES - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

Impacts on:

- (a) Cultural uniqueness and diversity? **None**
- (b) Local and state tax base and tax revenues? **None**
- (c) Existing land uses? **No significant impact from the additional stock tanks.**
- (d) Quantity and distribution of employment? **None**
- (e) Distribution and density of population and housing? **None**
- (f) Demands for government services? **None**
- (g) Industrial and commercial activity? **None**
- (h) Utilities? **None**
- (i) Transportation? **None**
- (j) Safety? **None**
- (k) Other appropriate social and economic circumstances? **None**

2. *Secondary and cumulative impacts on the physical environment and human population:*

Secondary Impacts : No secondary impacts have been identified.

Cumulative Impacts: **No cumulative impacts have been identified.**

3. *Describe any mitigation/stipulation measures:*

No mitigation or stipulation measures have been identified by the Applicant. The Department may impose a measurement condition to ensure required criteria are met.

4. *Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:*

No action alternative: Deny the application. This alternative would result in no change to the existing water rights for irrigation.

PART III. Conclusion

1. ***Preferred Alternative***

The preferred alternative is the proposed alternative.

- 2 ***Comments and Responses***

None Received.

3. ***Finding:***

Yes___ No X Based on the significance criteria evaluated in this EA, is an EIS required?

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action:

None of the identified impacts for any of the alternatives are significant as defined in ARM 36.2.524.

Name of person(s) responsible for preparation of EA:

Name: Michael Everett

Title: Water Resources Specialist – LRO

Date: 10/24/2016